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May 30, 2019

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

**RE: Duke Energy Progress, LLC – Monthly Power Plant
Performance Report
Docket No. 2006-224-E**

Dear Ms. Boyd:

Pursuant to the Commission's Orders in Docket No. 1977-354-E, enclosed for filing is the Monthly Power Plant Performance Report in Docket No. 2006-224-E for the month of April 2019.

Should you have any questions regarding this matter, please do not hesitate to contact me at 803.988.7130.

Sincerely,

Rebecca J. Dulin

Enclosure

cc: Ms. Dawn Hipp, Office of Regulatory Staff
Mr. Jeffrey M. Nelson, Office of Regulatory Staff
Ms. Nanette Edwards, Office of Regulatory Staff
Mr. Michael Seaman-Huynh, Office of Regulatory Staff
Ms. Heather Shirley Smith, Duke Energy
Mr. Scott Elliott, Elliott & Elliott, P.A.
Mr. Garrett Stone, Brickfield, Burchette, Ritts & Stone, PC
Mr. Gary Walsh, Walsh Consulting, LLC

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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Period: April, 2019

Station	Unit	Date of Outage	Duration of Outage	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
Brunswick	1	03/28/2019 - 04/11/2019	243.88	Unscheduled	Forced outage due to drywell leak	Failed instrument coupling.	Replace failed coupling and complete an extent of condition review.
	1	04/21/2019 - 04/27/2019	132.38	Unscheduled	Forced outage due to false reactor high level indication B1F22C	Automatic turbine trip and scram caused by false reactor high level indication	Cause analysis performed to identify problem and necessary corrective actions. Instrument air lines were fully flushed prior to coming out of the outage.
	2	03/02/2019 - 04/03/2019	48.00	Scheduled	End-of-cycle 24 refueling outage	Planned refueling outage.	None, planned outage.
	2	04/03/2019 - 04/13/2019	241.02	Unscheduled	Forced outage due to failed instrument coupling on Unit 1 (extent of condition)	Failed Instrument Coupling on Unit 1 (extent of condition).	Complete an extent of condition review.
	2	04/13/2019 - 04/13/2019	1.30	Scheduled	Turbine offline following turbine overspeed trip test	Planned turbine overspeed trip test.	None, planned outage.
Harris	1	None					
Robinson	2	None					

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
April 2019**

Lee Energy Complex

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
1A	4/17/2019 8:15:00 PM To 4/18/2019 12:02:00 AM	Unsch	5039	Other compressor problems	Water in CT due to water wash valve leaking thru.	

Richmond County Station

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
9	3/16/2019 4:03:00 AM To 5/1/2019 12:00:00 AM	Sch	5260	Major Gas Turbine Overhaul	CTmajor, BOP and ST major.	
10	3/16/2019 4:03:00 AM To 5/1/2019 12:00:00 AM	Sch	5260	Major Gas Turbine Overhaul	CTmajor, BOP and ST major.	
ST5	3/16/2019 3:54:00 AM To 5/1/2019 12:00:00 AM	Sch	4400	Major Turbine Overhaul (720 Hours Or Longer)	CTmajor, BOP and ST major.	

Sutton Energy Complex

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
1A	4/12/2019 12:42:00 AM To 4/26/2019 4:20:00 PM	Sch	5272	Gas Turbine - Boroscope Inspection	Boroscope Outage	
1B	4/13/2019 1:26:00 AM To 4/25/2019 1:32:00 PM	Sch	5272	Gas Turbine - Boroscope Inspection	Boroscope Outage	
ST1	4/13/2019 12:56:00 AM To 4/28/2019 3:02:00 PM	Sch	5272	Gas Turbine - Boroscope Inspection	SCC01S19 OMS OUTAGE	

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**April 2019
Brunswick Nuclear Station**

	<u>Unit 1</u>	<u>Unit 2</u>		
(A) MDC (mW)	938	932		
(B) Period Hours	720	720		
(C) Net Gen (mWh) and Capacity Factor (%)	304,942	45.15	290,708	43.32
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	45,948	6.85
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00	31,736	4.73
(F) Net mWh Not Gen due to Full Forced Outages	352,938	52.26	224,628	33.47
* (G) Net mWh Not Gen due to Partial Forced Outages	17,480	2.59	78,020	11.63
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	675,360	100.00%	671,040	100.00%
(K) Equivalent Availability (%)		44.72		43.80
(L) Output Factor (%)		94.58		72.59
(M) Heat Rate (BTU/NkWh)		11,126		11,220

* Estimate
FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**April 2019
Harris Nuclear Station**

Unit 1

(A) MDC (mW)	964	
(B) Period Hours	720	
(C) Net Gen (mWh) and Capacity Factor (%)	704,407	101.49
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	521	0.08
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-10,848	-1.57
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	694,080	100.00%
(K) Equivalent Availability (%)		99.93
(L) Output Factor (%)		101.49
(M) Heat Rate (BTU/NkWh)		10,269

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**April 2019
Robinson Nuclear Station**

Unit 2

(A) MDC (mW)	741	
(B) Period Hours	720	
(C) Net Gen (mWh) and Capacity Factor (%)	566,783	106.23
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-33,263	-6.23
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	533,520	100.00%
(K) Equivalent Availability (%)		100.00
(L) Output Factor (%)		106.23
(M) Heat Rate (BTU/NkWh)		10,127

* Estimate
FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
April 2019**

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	225	227	228	379	1,059
(B) Period Hrs	720	720	720	720	720
(C) Net Generation (mWh)	127,347	126,980	130,252	259,320	643,899
(D) Capacity Factor (%)	78.61	77.69	79.34	95.03	84.45
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	19,696	20,520	20,880	360	61,456
(H) Scheduled Derates: percent of Period Hrs	12.16	12.56	12.72	0.13	8.06
(I) Net mWh Not Generated due to Full Forced Outages	851	0	0	0	851
(J) Forced Outages: percent of Period Hrs	0.53	0.00	0.00	0.00	0.11
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	732	732
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.27	0.10
(M) Net mWh Not Generated due to Economic Dispatch	14,106	15,940	13,028	12,468	55,542
(N) Economic Dispatch: percent of Period Hrs	8.71	9.75	7.94	4.57	7.28
(O) Net mWh Possible in Period	162,000	163,440	164,160	272,880	762,480
(P) Equivalent Availability (%)	87.32	87.44	87.28	99.60	91.73
(Q) Output Factor (%)	80.00	78.20	79.59	95.77	85.17
(R) Heat Rate (BTU/NkWh)	8,729	8,816	8,697	4,899	7,197

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
April 2019**

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	194	194	182	570
(B) Period Hrs	720	720	720	720
(C) Net Generation (mWh)	111,247	111,333	125,352	347,932
(D) Capacity Factor (%)	79.64	79.71	95.66	84.78
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	14,400	14,760	4,680	33,840
(H) Scheduled Derates: percent of Period Hrs	10.31	10.57	3.57	8.25
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	14,033	13,587	1,008	28,628
(N) Economic Dispatch: percent of Period Hrs	10.05	9.73	0.77	6.98
(O) Net mWh Possible in Period	139,680	139,680	131,040	410,400
(P) Equivalent Availability (%)	89.69	89.43	96.43	91.75
(Q) Output Factor (%)	80.12	80.33	96.78	85.50
(R) Heat Rate (BTU/NkWh)	11,001	10,888	0	7,002

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
April 2019**

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	216	216	248	680
(B) Period Hrs	720	720	720	720
(C) Net Generation (mWh)	-19	-19	0	-38
(D) Capacity Factor (%)	0.00	0.00	0.00	0.00
(E) Net mWh Not Generated due to Full Scheduled Outages	155,520	155,520	178,560	489,600
(F) Scheduled Outages: percent of Period Hrs	100.00	100.00	100.00	100.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	0	0	0	0
(N) Economic Dispatch: percent of Period Hrs	0.00	0.00	0.00	0.00
(O) Net mWh Possible in Period	155,520	155,520	178,560	489,600
(P) Equivalent Availability (%)	0.00	0.00	0.00	0.00
(Q) Output Factor (%)	0.00	0.00	0.00	0.00
(R) Heat Rate (BTU/NkWh)	0	0	0	0

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
April 2019**

Sutton Energy Complex

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	224	224	271	719
(B) Period Hrs	720	720	720	720
(C) Net Generation (mWh)	67,669	76,976	73,608	218,253
(D) Capacity Factor (%)	41.96	47.73	37.72	42.16
(E) Net mWh Not Generated due to Full Scheduled Outages	78,971	67,222	101,381	247,575
(F) Scheduled Outages: percent of Period Hrs	48.97	41.68	51.96	47.82
(G) Net mWh Not Generated due to Partial Scheduled Outages	9,921	11,127	865	21,913
(H) Scheduled Derates: percent of Period Hrs	6.15	6.90	0.44	4.23
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	4,719	5,954	19,266	29,939
(N) Economic Dispatch: percent of Period Hrs	2.93	3.69	9.87	5.78
(O) Net mWh Possible in Period	161,280	161,280	195,120	517,680
(P) Equivalent Availability (%)	44.88	51.42	47.60	47.94
(Q) Output Factor (%)	82.48	82.11	78.52	80.98
(R) Heat Rate (BTU/NkWh)	11,252	11,249	0	7,456

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
April 2019**

Mayo Station

Unit 1

(A) MDC (mW)	746
(B) Period Hrs	720
(C) Net Generation (mWh)	-5,682
(D) Net mWh Possible in Period	537,120
(E) Equivalent Availability (%)	88.61
(F) Output Factor (%)	0.00
(G) Capacity Factor (%)	0.00

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
April 2019**

	Roxboro Station		
	Unit 2	Unit 3	Unit 4
(A) MDC (mW)	673	698	711
(B) Period Hrs	720	720	720
(C) Net Generation (mWh)	-1,671	18,322	240,780
(D) Net mWh Possible in Period	484,560	502,560	511,920
(E) Equivalent Availability (%)	77.72	14.10	63.62
(F) Output Factor (%)	0.00	56.19	73.93
(G) Capacity Factor (%)	0.00	3.65	47.03

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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May 2018 - April 2019
Brunswick Nuclear Station

	<u>Unit 1</u>	<u>Unit 2</u>		
(A) MDC (mW)	938	932		
(B) Period Hours	8760	8760		
(C) Net Gen (mWh) and Capacity Factor (%)	7,611,532	92.63	6,498,960	79.60
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	716,056	8.77
* (E) Net mWh Not Gen due to Partial Scheduled Outages	28,999	0.35	108,111	1.32
(F) Net mWh Not Gen due to Full Forced Outages	626,240	7.62	477,496	5.85
* (G) Net mWh Not Gen due to Partial Forced Outages	-49,891	-0.60	363,697	4.46
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	8,216,880	100.00%	8,164,320	100.00%
(K) Equivalent Availability (%)		93.57		82.89
(L) Output Factor (%)		100.28		93.23
(M) Heat Rate (BTU/NkWh)		10,422		10,835

* Estimate

FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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May 2018 - April 2019
Harris Nuclear Station

Unit 1

(A) MDC (mW)	964	
(B) Period Hours	8760	
(C) Net Gen (mWh) and Capacity Factor (%)	8,363,167	101.29
(D) Net mWh Not Gen due to Full Schedule Outages	221,490	2.68
* (E) Net mWh Not Gen due to Partial Scheduled Outages	13,130	0.16
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-341,339	-4.13
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	8,256,448	100.00%
(K) Equivalent Availability (%)		97.02
(L) Output Factor (%)		104.10
(M) Heat Rate (BTU/NkWh)		10,215

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**May 2018 - April 2019
Robinson Nuclear Station**

Unit 2

(A) MDC (mW)	741	
(B) Period Hours	8760	
(C) Net Gen (mWh) and Capacity Factor (%)	5,268,447	81.16
(D) Net mWh Not Gen due to Full Schedule Outages	1,297,442	19.99
* (E) Net mWh Not Gen due to Partial Scheduled Outages	95,687	1.47
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-170,416	-2.62
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	6,491,160	100.00%
(K) Equivalent Availability (%)		78.76
(L) Output Factor (%)		101.44
(M) Heat Rate (BTU/NkWh)		10,474

* Estimate
FOOTNOTE: D and F Include Ramping Losses

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**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May, 2018 through April, 2019**

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	225	227	228	379	1,059
(B) Period Hrs	8,760	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,487,128	1,492,281	1,514,092	2,974,584	7,468,085
(D) Capacity Factor (%)	75.45	75.04	75.81	89.59	80.50
(E) Net mWh Not Generated due to Full Scheduled Outages	0	12,069	14,809	0	26,877
(F) Scheduled Outages: percent of Period Hrs	0.00	0.61	0.74	0.00	0.29
(G) Net mWh Not Generated due to Partial Scheduled Outages	280,035	292,442	297,888	49,427	919,792
(H) Scheduled Derates: percent of Period Hrs	14.21	14.71	14.91	1.49	9.91
(I) Net mWh Not Generated due to Full Forced Outages	46,826	37,561	36,096	78,529	199,012
(J) Forced Outages: percent of Period Hrs	2.38	1.89	1.81	2.37	2.15
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	9,986	9,986
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.30	0.11
(M) Net mWh Not Generated due to Economic Dispatch	157,011	154,167	134,395	207,514	653,087
(N) Economic Dispatch: percent of Period Hrs	7.97	7.75	6.73	6.25	7.04
(O) Net mWh Possible in Period	1,971,000	1,988,520	1,997,280	3,320,040	9,276,840
(P) Equivalent Availability (%)	83.42	82.80	82.54	95.85	87.54
(Q) Output Factor (%)	78.67	77.18	77.99	92.16	83.04
(R) Heat Rate (BTU/NkWh)	8,982	9,066	8,977	4,619	7,260

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May, 2018 through April, 2019**

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	191	191	177	559
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,241,261	1,231,784	1,388,949	3,861,994
(D) Capacity Factor (%)	74.33	73.76	89.43	78.93
(E) Net mWh Not Generated due to Full Scheduled Outages	103,816	93,362	60,727	257,904
(F) Scheduled Outages: percent of Period Hrs	6.22	5.59	3.91	5.27
(G) Net mWh Not Generated due to Partial Scheduled Outages	176,891	181,360	61,923	420,173
(H) Scheduled Derates: percent of Period Hrs	10.59	10.86	3.99	8.59
(I) Net mWh Not Generated due to Full Forced Outages	15,578	22,448	5,014	43,040
(J) Forced Outages: percent of Period Hrs	0.93	1.34	0.32	0.88
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	12,850	12,850
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.83	0.26
(M) Net mWh Not Generated due to Economic Dispatch	132,490	141,081	23,689	297,261
(N) Economic Dispatch: percent of Period Hrs	7.93	8.45	1.53	6.07
(O) Net mWh Possible in Period	1,670,035	1,670,035	1,553,153	4,893,223
(P) Equivalent Availability (%)	82.28	82.22	91.05	85.00
(Q) Output Factor (%)	80.32	80.22	93.75	84.65
(R) Heat Rate (BTU/NkWh)	11,336	11,167	0	7,205

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May, 2018 through April, 2019**

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	216	216	248	680
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,363,880	1,373,855	1,777,034	4,514,769
(D) Capacity Factor (%)	72.08	72.61	81.80	75.79
(E) Net mWh Not Generated due to Full Scheduled Outages	237,589	239,504	272,825	749,918
(F) Scheduled Outages: percent of Period Hrs	12.56	12.66	12.56	12.59
(G) Net mWh Not Generated due to Partial Scheduled Outages	192,361	188,027	0	380,388
(H) Scheduled Derates: percent of Period Hrs	10.17	9.94	0.00	6.39
(I) Net mWh Not Generated due to Full Forced Outages	1,300	0	0	1,300
(J) Forced Outages: percent of Period Hrs	0.07	0.00	0.00	0.02
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	1,848	1,848
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.09	0.03
(M) Net mWh Not Generated due to Economic Dispatch	97,031	90,774	120,773	308,578
(N) Economic Dispatch: percent of Period Hrs	5.13	4.80	5.56	5.18
(O) Net mWh Possible in Period	1,892,160	1,892,160	2,172,480	5,956,800
(P) Equivalent Availability (%)	77.21	77.41	87.36	80.97
(Q) Output Factor (%)	82.99	83.13	93.55	86.89
(R) Heat Rate (BTU/NkWh)	11,319	11,261	0	6,846

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May, 2018 through April, 2019**

Sutton Energy Complex

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	224	224	271	719
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,142,996	1,128,868	1,226,273	3,498,137
(D) Capacity Factor (%)	58.25	57.53	51.66	55.54
(E) Net mWh Not Generated due to Full Scheduled Outages	192,326	241,924	231,244	665,494
(F) Scheduled Outages: percent of Period Hrs	9.80	12.33	9.74	10.57
(G) Net mWh Not Generated due to Partial Scheduled Outages	222,179	207,417	16,821	446,416
(H) Scheduled Derates: percent of Period Hrs	11.32	10.57	0.71	7.09
(I) Net mWh Not Generated due to Full Forced Outages	132,765	166,996	569,475	869,235
(J) Forced Outages: percent of Period Hrs	6.77	8.51	23.99	13.80
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	9,799	9,799
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.41	0.16
(M) Net mWh Not Generated due to Economic Dispatch	271,974	217,035	320,348	809,358
(N) Economic Dispatch: percent of Period Hrs	13.86	11.06	13.49	12.85
(O) Net mWh Possible in Period	1,962,240	1,962,240	2,373,960	6,298,440
(P) Equivalent Availability (%)	72.11	68.59	65.15	68.39
(Q) Output Factor (%)	77.58	78.01	78.25	77.95
(R) Heat Rate (BTU/NkWh)	11,375	11,378	0	7,388

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
May, 2018 through April, 2019**

Mayo Station

Units	Unit 1
(A) MDC (mW)	746
(B) Period Hrs	8,760
(C) Net Generation (mWh)	1,154,171
(D) Net mWh Possible in Period	6,534,960
(E) Equivalent Availability (%)	65.49
(F) Output Factor (%)	36.28
(G) Capacity Factor (%)	17.66

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
May, 2018 through April, 2019**

Roxboro Station

Units	Unit 2	Unit 3	Unit 4
(A) MDC (mW)	673	698	711
(B) Period Hrs	8,760	8,760	8,760
(C) Net Generation (mWh)	1,539,680	1,250,499	2,201,937
(D) Net mWh Possible in Period	5,895,480	6,114,480	6,228,360
(E) Equivalent Availability (%)	84.74	53.77	69.70
(F) Output Factor (%)	50.16	49.97	58.01
(G) Capacity Factor (%)	26.12	20.45	35.35

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Outages for 100 mW or Larger Units
April, 2019

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<u>Unit Name</u>	<u>Capacity Rating (mW)</u>	<u>Full Outage Hours</u>		<u>Total</u>
		<u>Scheduled</u>	<u>Unscheduled</u>	
Brunswick 1	938	0.00	376.27	376.27
Brunswick 2	932	49.30	241.02	290.32
Harris 1	964	0.00	0.00	0.00
Robinson 2	741	0.00	0.00	0.00

Duke Energy Progress
Outages for 100 mW or Larger Units
April 2019

Unit Name	Capacity Rating (mW)	Full Outage Hours		Total Outage Hours
		Scheduled	Unscheduled	
Asheville Steam 1	192	119.65	0.00	119.65
Asheville Steam 2	192	119.28	0.00	119.28
Asheville CT 3	185	0.00	85.73	85.73
Asheville CT 4	185	0.00	154.53	154.53
Darlington CT 12	133	0.00	3.15	3.15
Darlington CT 13	133	0.00	0.00	0.00
Lee Energy Complex CC 1A	225	0.00	3.78	3.78
Lee Energy Complex CC 1B	227	0.00	0.00	0.00
Lee Energy Complex CC 1C	228	0.00	0.00	0.00
Lee Energy Complex CC ST1	379	0.00	0.00	0.00
Mayo Steam 1	746	0.00	0.00	0.00
Richmond County CT 1	189	0.00	0.00	0.00
Richmond County CT 2	187	119.75	0.00	119.75
Richmond County CT 3	185	720.00	0.00	720.00
Richmond County CT 4	186	0.00	0.00	0.00
Richmond County CT 6	187	0.00	0.00	0.00
Richmond County CC 7	194	0.00	0.00	0.00
Richmond County CC 8	194	0.00	0.00	0.00
Richmond County CC ST4	182	0.00	0.00	0.00
Richmond County CC 9	216	720.00	0.00	720.00
Richmond County CC 10	216	720.00	0.00	720.00
Richmond County CC ST5	248	720.00	0.00	720.00

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Outages for 100 mW or Larger Units
April 2019

Unit Name	Capacity Rating (mW)	Full Outage Hours		Total Outage Hours
		Scheduled	Unscheduled	
Roxboro Steam 1	380	0.00	0.00	0.00
Roxboro Steam 2	673	160.42	0.00	160.42
Roxboro Steam 3	698	618.50	0.00	618.50
Roxboro Steam 4	711	261.92	0.00	261.92
Sutton Energy Complex CC 1A	224	352.55	0.00	352.55
Sutton Energy Complex CC 1B	224	300.10	0.00	300.10
Sutton Energy Complex CC ST1	271	374.10	0.00	374.10
Wayne County CT 10	192	0.00	0.00	0.00
Wayne County CT 11	192	0.00	0.00	0.00
Wayne County CT 12	193	0.00	0.00	0.00
Wayne County CT 13	191	0.00	0.00	0.00
Wayne County CT 14	195	0.00	0.00	0.00

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.